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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,309	12/03/2001	Takahiro Kawashima	PW 0277024 H7605US	7933

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EXAMINER

SAMS, MATTHEW C

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,309

Applicant(s)

KAWASHIMA, TAKAHIRO

Examiner

Matthew C. Sams

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/23/05</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action has been changed in response to the amendment filed on 4/14/2005.

### ***Information Disclosure Statement***

2. The information disclosure statement filed on 5/23/2005 has been considered.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US-5,777,249) in view of Suzuki et al. (US-4,916,996).

Regarding claim 1, Suzuki teaches a tone generator system (Fig. 1) comprising a first storage (Fig. 1 [DM]) for compressed waveform data. (Col. 2 lines 54-55) Suzuki teaches a first decoder (Fig. 1 [DEC2]) that responds to tone color changing instruction data (Fig. 1 [TS]) included in musical composition data to be reproduced by reading out from the first storage (Fig. 1 [DM]), a compressed waveform data corresponding to the tone color changing instruction data. (Col. 3 line 55 through Col. 4 line 10) Suzuki

Art Unit: 2643

teaches that decoding the compressed waveform data into waveform data in a pulse code modulation format. (Col. 6 lines 49-59) Suzuki teaches a tone generator system (Fig. 1) with a section that is responsive to sounding instruction data included in the musical composition data to be reproduced by generating musical tones based on the waveform data in the pulse code modulation format stored in the second storage (Fig. 1 [DLY2]). (Col. 2 line 58 through Col. 3 line 8 and Col. 6 lines 49-59) Suzuki differs from the claimed invention by not showing a second storage that is for waveform data in the pulse code modulation format decoded by the first decoder. However, Suzuki et al. teaches a musical tone generating apparatus with a first memory means for storing compressed waveform data and a second memory means for waveform data in the pulse code modulation format decoded by the first decoder. (Col. 2 line 41 through Col. 3 line 19, Col. 4 lines 44-53 and Fig. 2A [106 & 107]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to incorporate the second memory of Suzuki et al. into the tone generator system of Suzuki. One of ordinary skill in the art would have been motivated to do this since generating musical tones that replicate acoustic musical instruments requires an extensive amount of memory and processing. (Col. 1 lines 15-55)

Regarding claim 3, Suzuki teaches a tone generator system (Fig. 1) with a second waveform storage capable of storing waveform data inputted by a user. (Col. 4 line 18-34 and Fig. 1 [S<sub>n</sub>])

Regarding claim 4, Suzuki teaches a tone generator system (Fig. 1) with a decoder (Fig. 1 [DEC2]) that is capable of decoding compressed audio stream data inputted from an external device. (Col. 8 lines 10-20 and Fig. 1)

Regarding claim 5, Suzuki teaches a tone generating method (Fig. 1) including a decoding step for reading data from the first compressed waveform storage to at least one tone color changing instruction data included in musical composition data to be reproduced. (Col. 3 line 55 through Col. 4 line 10) Suzuki teaches decoding the readout compressed waveform data into pulse code modulation format according to tone color changing instruction data. (Col. 3 line 47 through Col. 4 line 10 and Col. 6 lines 49-59) Suzuki teaches a tone generator system (Fig. 1) with a section that is responsive to sounding instruction data included in the musical composition data to be reproduced by generating musical tones based on the waveform data in the pulse code modulation format stored in the second storage. (Col. 2 line 58 through Col. 3 line 8 and Col. 6 lines 49-59)

Regarding claim 6, Suzuki in view of Suzuki et al. teaches a program for executing a tone generating method stored in a medium readable by a computer. (Suzuki Col. 8 lines 1-9) Suzuki in view of Suzuki et al. teaches a first decoder (Suzuki Fig. 1 [DEC2]) that responds to tone color changing instruction data included in musical composition data to be reproduced by reading out from the first storage, a compressed waveform data corresponding to the tone color changing instruction data. (Suzuki Col. 3 line 55 through Col. 4 line 10 and Col. 8 lines 1-9) Suzuki in view of Suzuki et al. teaches that decoding the compressed waveform data into waveform data in a pulse code modulation format. (Suzuki Col. 6 lines 49-59) Suzuki in view of Suzuki et al. teaches a second storage that is for waveform data in the pulse code modulation format decoded by the first decoder. (Suzuki et al. Col. 2 line 41 through Col. 3 line 19, Col. 4 lines 44-53 and Fig. 2A [106 & 107]) Suzuki in view of Suzuki et al. teaches a tone

Art Unit: 2643

generator system with a section that is responsive to sounding instruction data included in the musical composition data to be reproduced by generating musical tones based on the waveform data in the pulse code modulation format stored in the second storage. (Suzuki Col. 2 line 58 through Col. 3 line 8 and Col. 6 lines 49-59)

Regarding claim 7, the limitations of claim 7 are rejected as the same reason set forth above in claim 3.

Regarding claim 8, the limitations of claim 8 are rejected as the same reason set forth above in claim 4.

Regarding claim 9, the limitations of claim 9 are rejected as the same reason set forth above in claim 3.

Regarding claim 10, the limitations of claim 10 are rejected as the same reason set forth above in claim 4.

### ***Response to Arguments***

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-6,549,767 to Kawashima dealing with a telephone device capable of reproduction sound data.

US-6,731,723 to Garey regarding a multi-line recording device with reduced processing and storage requirements.

Art Unit: 2643

US-6,242,681 to Daishoji regarding a waveform reproduction device and method of reproduction from compressed waveform samples.


US-5,463,183 to Konno regarding a musical tone forming apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571)272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCS  
7/10/2005

  
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SUPERVISORY PATENT EXAMINER  
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